



n e w s l e t t e r

Issue #2 (November 2009)

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The electronic version of the newsletter can be found on our website:
<http://is.jrc.ec.europa.eu/pages/newsletter.html>

Editor's Note

Our first newsletter (May 2009) introduced our range of research activities. This 2nd issue looks into two areas of our work in more depth. The first deals with R&D investments in the ICT sector and the second with eInclusion from the aspect of ICT use by immigrants and ethnic minorities in Europe.

During the summer, we updated the [publications page of our website](#) to provide an online search capability of our publications archive. As a complement, we have decided to include in this issue abstracts of our most recent publications to give you a further insight into our work.

As 2009 draws to a close, we are already gearing up for new activities in 2010. In addition to continuing our core work, we will start a new research activity examining the "digital economy". We've all had experiences of the digital economy during the last decade and we understand some of its characteristics and trends, but rigorously collected data and robust methodological analyses are somewhat sparse.

Finally, we have just published two new JRC Scientific and Technical Reports: 1) "[The Impact of Social Computing on the EU Information Society and Economy](#)" at , which brings together multi-sector research findings, is targeted at policy makers, and is the culmination of the past two years of our Unit's research; 2) a complementary work entitled "[Public Services 2.0: The impact of Social Computing on Public Services](#)". Both reports are downloadable from our website at <http://ipts.jrc.ec.europa.eu/publications/index.cfm>

David Broster

Head of the Information Society Unit

**European Commission - Joint Research Centre
Institute for Prospective Technological Studies**

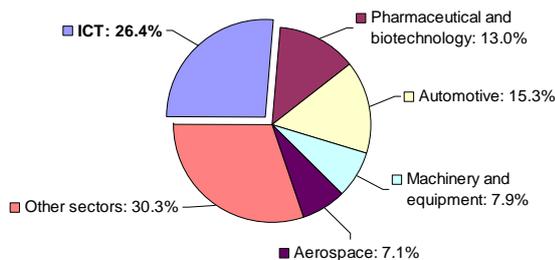
1. ICT Sector: The Largest R&D Investing Sector in the EU, USA and Japan

The ICT sector is by far the largest R&D investing sector in the economies of the EU, the USA, and Japan. This is one of the main conclusions of "The 2009 report on R&D in ICT in the European Union" published by the Institute for Prospective Technological Studies (IPTS) Information Society Unit in May 2009. The report provides, for the first time, a comprehensive view on ICT R&D investments in the EU (2001-2005) by combining three complementary perspectives: national statistics, company data, and technology indicators.

This report is the first of a series which will be published annually. The research was carried out by the IS Unit in the context of PREDICT, a research project co-financed by IPTS and the Information Society & Media Directorate General (DG INFSO) of the European Commission. The full report can be accessed [here](#).

Although the EU ICT sector represents only about 3% of total employment in the EU and 4.9% of GDP, it accounts for **26% of overall business expenditure in R&D (BERD) and employs 32% of business sector researchers.**¹

Figure 1: Share of ICT in EU total BERD, Year 2005



Source: EUROSTAT and IPTS calculations.

Moreover, total business expenditures in ICT R&D are even larger than the ICT sectoral figures show, since **additional ICT R&D is carried out in non-ICT designated sectors** (for example, the automotive sector).

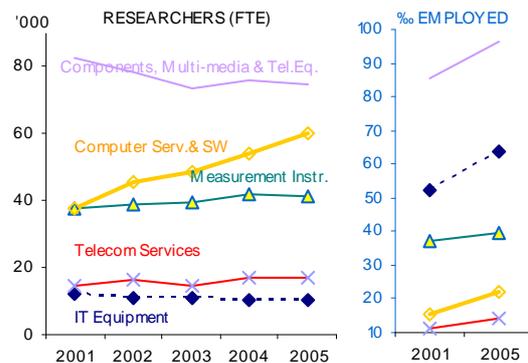
Other results show that the EU's main competitors (such as the USA, Japan, or Korea) are investing significantly more in ICT R&D (when comparing ICT

¹ 2005 figures, which were the latest available in December 2008.

R&D over GDP ratios). **The equivalent figures for the USA are twice as big as those of the EU.**

In the period 2001 to 2005, ICT manufacturing, and also telecom services, experienced decreasing BERD (in real terms) and stagnating or decreasing numbers of researchers. The reduction since 2001 in the number of researchers in ICT manufacturing, particularly in the Multimedia and Telecom Equipment sub-sector, was however counterbalanced by an increase of researchers in ICT services, particularly in the Computer Services and Software sub-sector. **The Computer Services and Software ICT sub-sector is, moreover, the only EU ICT sub-sector with a clearly sustained trend showing increasing BERD (+40% from 2001 to 2005) and increasing employment of researchers (+60% during the same period).**

Figure 2: EU27 ICT sector researchers and R&D employment intensity by industry, 2001-2005



Source: IPTS estimates based on Eurostat, OECD and national sources.

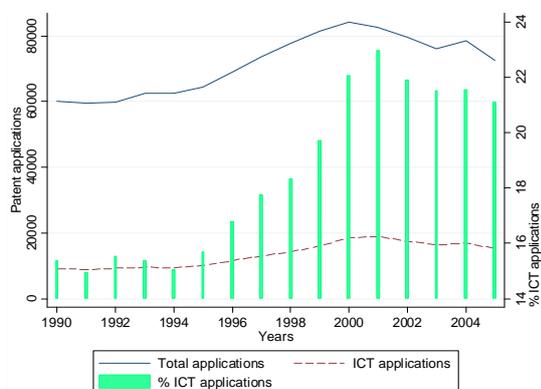
This year's PREDICT report provides a first set of estimated data on public funding of R&D based on Government Budget Appropriations or Outlays for R&D by Socio-economic Objectives (GBAORD), as computed and published by the OECD (Science, Technology and Patents Statistics Database) and Eurostat (R&D Statistics Database), and following the recommendations of the OECD Frascati Manual.² Results indicate that EU Governments fund only a relatively small share of ICT R&D. In 2005, EU governments' support to ICT R&D was €4.5 bn (GBAORD), or 12.5% of Gross Expenditure on ICT R&D (ICT GERD). This is well below the US figure of €10.6 bn that represent 15.5% of US ICT GERD (itself twice as large as the EU ICT GERD).

² OECD (2002), Frascati Manual: Proposed standard Practice for Surveys on Research and Experimental Development. Sixth edition; Paris.

PREDICT also offers a detailed analysis of top R&D investing companies in the ICT sector, comparing companies or groups registered in the EU to those registered in the rest of the world. This analysis reinforces the nature of the differences between the EU and US ICT industrial landscapes. In particular, relatively young (less than 15 years old) US companies show strong R&D investment growth, while they already have high absolute levels of R&D investment. In comparison, the EU has fewer large ICT companies with high R&D investments, and they are usually older than their US counterparts. Hence the dynamics and growth characteristics exhibited in the US are less present in the EU.

In terms of patent statistics, **more than 20% of all EU patent priority applications since 2000 are ICT applications** (see figure below). The share of European ICT applications steadily increased in the second part of the 1990s, from around 15% in 2001. In the last few years, a decrease in total applications can be observed, as well as a sharper decrease (in relative terms) in ICT applications from their peak in 2001 after the burst of the dot-com bubble.

Figure 3: ICT and total priority patent applications, EU27



Source: IPTS analysis of the PATSTAT database (April 2008 release). Inventor criterion

The next PREDICT report will include data for the period 2001-2007, based entirely on comprehensive EUROSTAT data resulting from the implementation of the new data collection Regulation.³

³ With implementation of the Regulation 753/2004, transmission by the EU Member States to EUROSTAT of BERD broken down by industry is now obligatory from reference year 2005 (except when they used derogations).

Future lines of investigation include:

- Business demographics EU/US linked to differential R&D investment, company growth rates and globalisation capacities.
- ICT R&D and production off-shoring and implications for R&D/Value Added (intensity) determination.
- ICT R&D undertaken outside the ICT business sector.
- Modelling of ICT sectors based on general equilibrium approach.
- Inclusion of data from the US patent office (USPTO) in the patent analysis.

This type of information is extremely important for policymakers since:

- The ICT sector is by far the largest R&D investor, R&D employer and R&D performer in the EU (as it is in the USA and Japan).
- It is therefore a key sector in the pursuit of the Lisbon objectives, taking into consideration the role of the ICT industry and of ICT-enabled innovation in the economic growth of advanced economies.
- It is a pillar of the Information Society policy of the Commission, and the largest research budget of the Framework Programme.

2. eInclusion Research at IPTS: an Interview with the Team

For the past few years, the IS Unit has been working on issues relating to the use of ICT to support Immigrants and Ethnic Minorities (IEM). The eInclusion team has addressed the *ICT for cultural diversity* priority of the [Riga Declaration](#) – looking at the adoption and usage of ICT by and for Immigrants and Ethnic Minorities in Europe - and the rich and complex role of third sector organisations in e-Inclusion initiatives. Given the limited statistical evidence in this area, their work has mainly addressed the challenge of putting together existing data, drawing the broad picture by mapping initiatives in Europe and studying some cases in more depth. *IS News* has interviewed Stefano Kluzer and Alexandra Haché, two IPTS researchers who work in this area:

Q: When you speak about immigrants and ethnic minorities, who are these people?

Stefano: In the Riga Declaration, immigrants and ethnic minorities were not defined. In our work we

have used these terms in a very broad sense to refer to any person involved in a migration process, whatever its nature or stage (arrival, settlement, initial stay, long-term residence, application for naturalisation and access to citizenship, etc), including asylum seekers and refugees and second and third generation people with a migration background. We mostly considered *third country nationals* (from outside the EU), but we also included people originating from the new Member States which joined the EU in 2004 and 2007. For instance, some case studies looked at the use of ICT by people from Poland, Bulgaria, and Romania: countries which are now in the European Union. Technically, they cannot be considered migrants any more. But, despite being part of the EU, they still face problems relating to integration and transition regulations, like for instance, limited access to the labour market in some countries. The truth is that dealing with immigrants and ethnic minorities means dealing with very diverse conditions. And in fact, we believe that many of the issues and challenges that we have been studying with respect to third country nationals are very similar to those faced by Europeans when they move to other countries: language, understanding a new context, accessing public services and so on. We believe that policies which improve the conditions of IEM are likely to be beneficial also to Europeans.

Q: Why do you study the relation between IEM and Information Communications Technology (ICT)?

Alexandra: One of the needs identified in the Riga Inter Ministerial Summit was to find out how ICT could enhance cultural diversity. Cultural diversity is understood as multi-language and diverse culture. This is related to immigrants and ethnic minorities' backgrounds: what happens with immigrants when they come to Europe and before coming? Hence the question is: what can be done with ICT to enhance their social integration and economic participation? The problem is that there has never been a systematic approach to studying the possibilities of ICT for socio-economic integration of Immigrants and Ethnic Minorities at a European level. We wanted to know whether there is any evidence that ICT improves socio-economic integration.

Stefano: Migration into Europe has grown substantially in this decade and it is a process which is bound to continue in the future. So it is important to understand the needs and opportunities that immigrants face when they

arrive in Europe, in a society which in many aspects is already very *digital*.

Q: What are the key findings of the research you have been conducting in this area?

Alexandra: Underlying the Riga Declaration there was the hypothesis that IEM would be digitally excluded because they tend to come from a lower social rank. Generally, people who are socio-economically excluded also tend to be digitally excluded. One of the most surprising results, from the little data that exists, is that immigrants are active ICT users, sometimes even more so than the host country nationals. Immigrants were already using ICT before they left their own countries. The main reason for such active usage is to sustain their mobility. In this respect, the key technology is the mobile phone.

Stefano: Keeping in touch with social networks around the world and back home is a key motivation for using ICT. The Internet is also often used to search for information on job opportunities at different stages of the migration process, before leaving, on arrival and once resident in Europe.

Alexandra: ICT is also used to search for information about the host society, for instance about the education of children. In fact, many migrant women want to learn to use a PC and the internet to understand what their children do with them, to help with their homework and so on...

Stefano: ... and for maintaining links with the home country. Today it is typical that in most countries of origin, ICT is widely used. So for instance, this facilitates reading newspapers from back home, listening to the radio and watching TV online and so on. These tools are used to maintain an open link with information sources back home. The notion of the *connected migrant* by Dana Diminescu is important. It means that migrants increasingly live in different places at the same time. They can conduct their daily affairs back home while being in Europe.

Alexandra: In the past, a migrant was not really *here*, but was also not there anymore. There was a double cut. Now you have this connection which is very strong, which is also related to the globalisation phenomena. This has broad implications which still have to be studied.

Q: What is the next step in your research? Which aspects you would like to look at?

Stefano: Now that we have drawn the broad picture, we would like to go deeper into some

topics that we have identified as interesting. One area is how ICT can address integration challenges in every day life: access to services, social relationships and so on. Within this domain, we identified the potential use of ICT to address language barriers. ICT play a role here in two ways: the use of ICT to support language learning (this is the first line of the study we are about to launch) and how ICT can help bypass language barriers. The most obvious example is translation but there are many ways in which ICT can reduce the communication barrier that can result from written text. Another topic, which is a follow-up to other research we have been doing, is support through ICT for homecare. Socio-health care at home is an important phenomenon which is going to grow significantly in the future as the European population ages. We believe that technology can play a role. It is also a fact that migrant workers are very active in this sector. We believe that studying this link could be interesting.

Alexandra: We are also going to launch a broad study on young people at risk of social exclusion. In this study, we would also like to look at what is happening with young second and third generation immigrants. These youngsters are not immigrants because they have the right to residence and often the nationality, but still they face problems which are similar to immigrants' problems. We would like to look at how ICT can play a role.

Q: From your research, can you pinpoint some initiatives which you thought were particularly interesting?

Stefano: There are many examples, but to illustrate the potential of ICT in helping newly arrived migrants, we found an initiative in Greece supported by the [European Social Fund Equal initiative](#). NGOs working with asylum seekers managed to coordinate their initiatives, using ICT to share information about the management of individual cases. This has simplified the interaction between the asylum seekers and the NGOs, so it made life easier for the asylum seekers, while also improving service delivery by the organisation, as it avoids duplication of efforts. This activity has produced interesting statistics which can be used to analyse the changing needs of asylum seekers that have been used for both policy assessment and research purposes.

Alexandra: Another initiative is [BorderGames](#) which was first developed in Spain and then other places afterwards. It is an initiative based on neighbourhoods populated by young people with immigrant backgrounds from, for instance, the

Maghreb and Pakistan. BorderGames designers work with these young people to design games. The video game is designed with open source software, while the content of the game - for instance, the dialogue and the characters - are drafted by the young people. The game is based on an exploration of these young people's relationships with their neighbourhoods. It is a tool to make them reflect on their reality, daily lives, challenges and their special needs. The game is designed collectively and allows youngsters to learn various things, for instance how to edit videos or conduct street interviews. This initiative is a holistic one which addresses various issues and dimensions, but also results in a product, which can be used in various places. Kids are very proud to have their work presented in different places. This stimulates their capacity to relate with the host society and to enhance their citizenship. More information about the IS Unit's work in this area [here](#).

Bios:



Stefano Kluzer is an economist with a PhD in Information Systems from the London School of Economics and Political Science. He has been working at IPTS since January 2007, in charge of e-Inclusion research, specifically focusing on the use of ICT for/by immigrants and ethnic minorities. Between 2001 and 2006, he worked in Rome as Scientific Coordinator of the network of 21 Regional Competence Centres for e-government and the information society, set up by Foromez and Centro Nazionale Informatica nella Pubblica Amministrazione, as part of the Italian e-Government Action Plan. Between 1996 and 2001 he created and coordinated the Information Society Department at the regional development agency of Emilia-Romagna, ERVET Politiche per le Imprese Spa in Bologna.



Alexandra Haché is a sociologist with a PhD in Social Economics. Her current research for IPTS addresses the European panorama of eInclusion, the role and impact of Web 2.0 on civil society, the analysis of ICT use by immigrants and ethnic minorities and young people at risk of social exclusion. Alexandra is also researching the area of social movements and how they interact and develop ICT. This work is usually marked by the exploration of free and open source

tools and communities (FLOSS), inasmuch as the work is developed by groups oriented towards the collaborative development of maps and visualisations. Since 2005, she has also been

involved in a research project dealing with current relations between women and ICT.

3. Strategic Intelligence Monitor on Personal Health Systems (SIMPHS)

RESEARCH IN PROGRESS

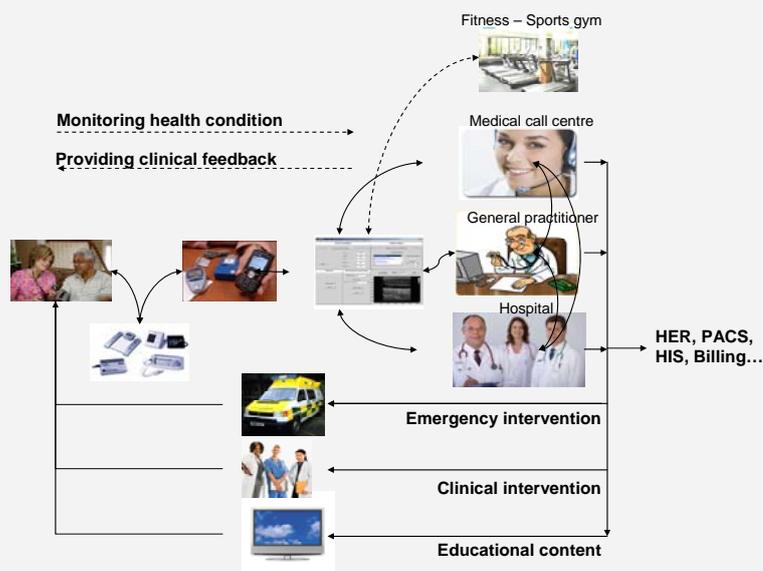
The SIMPHS project, which started last March in cooperation with DG INFSO, aims to analyse Personal Health Systems (PHS) and their innovation dynamics. The SIMPHS team started by carrying out desk research and expert interviews on remote patient monitoring (RMT), with a particular focus on chronic disease management (e.g. for chronic heart failure, diabetes and **Chronic obstructive pulmonary disease (COPD)**). A significant amount of data has now been collected.

Building on the knowledge gathered, the team is now identifying the key elements likely to contribute to the development of this promising market segment for Europe. An interim report is being prepared which includes in particular an overview of existing products and services on the PHS/RMT market, a characterisation of the PHS/RMT value chain, a description of the role of the various actors in this value chain and an analysis of innovative activities and their impact on market take up. Ultimately, some indicators will be derived from the data to enable the monitoring of the PHS market. Particular attention is being paid to how PHS can help transform healthcare organisation and how organisational and institutional issues impact on the deployment of PHS systems.

Preliminary findings on the RMT segment indicate that:

- Technology is not a problem, in fact there are more technology solutions available than are needed;
- SMEs play an active role in this market (e.g. as service providers), often at a very local level;
- Business models often rely on funding from pilots or projects, as RMT is very seldom covered by healthcare schemes in Europe;
- Addressing organisational issues in terms of healthcare and social care will be key to successful market deployment.

Figure 4: Remote patient monitoring – a medical perspective



4. Recent Publications

Ala-Mutka, K. (2009). *New Communities, New Spaces and New Ways for Learning*. In: *Proceedings of EDEN 2009 Annual Conference: Innovation in Learning Communities, 10-13/06/2009, Gdansk, Poland*.

This paper stems from the results of a project, carried out in collaboration with DG Education and Culture, on the innovative approaches to learning that are emerging in ICT-enabled environments. It discusses how learning is promoted in informal networking settings, arguing that ICT-enabled communities offer: i) different ways to learn (through discovery, participation and doing, and new opportunities for reflection), ii) a different social environment for learning (with active peer support, apprenticeship and situated learning with experts, social acknowledgement of learning, and social knowledge management), and iii) new ways to access and organise learning (by applying community models for courses, organisations, and linking external networks and communities to education in new ways).

Ala-Mutka, K. & Punie, Y. (2009). *Learning and innovation in new ICT-facilitated communities*. In: *Proceedings of the 3rd ICDE World Conference on Open Learning and Distance Education including the 2009 EADTU Annual Conference, 7-10/06/2009, Maastricht, the Netherlands*.

This paper presents the results of a review of learning in new ICT-enabled learning communities. It argues that learning taking place outside traditionally-recognized education and training is becoming a necessity for the skills and jobs of the future. Education and training policies, and also companies, should take these bottom-up ICT-enabled learning communities much more into account to foster lifelong learning.

Cachia, R. (2009). *The social, less social and the fecund aspects of social networking sites, in Conference Proceedings, in The Good, the Bad and the Challenging: The user and the future of information and communication technologies*, Copenhagen, Denmark.

The main conclusion of this work is that Social Networking Sites (SNS) contribute to sociality, but also propel other activities which are less social. It has also been observed that SNS have initiated other forms of behaviour and ways of operating in appropriating new media. SNS contribute to sociality by allowing young users to transpose various levels of social behaviour online, providing platforms for self-exploration, identity negotiation

and the creation of *hyperlinked avatars*. The less social aspects have been noted on two levels: users' behaviour in search of peer validation and the tendency of SNS to put people's control of their own data at risk. The prevailing networking nature of SNS supports new ways of creating and maintaining social networks and publishing this data, e.g. visualisation of social graphs of one's personal networks, as well as networks of friends.

Cullen, J., Cullen, C., Hayward, D., Maes, V. (2009). *Good Practices for Learning 2.0: Promoting Inclusion. An In-depth Study of Eight Learning 2.0 Cases*, JRC Technical Note JRC53578, Seville, Spain.

This Technical Note stems from the [Learning 2.0 project](#) which assessed the impact of Web 2.0 trends on the field of learning and education in Europe and Europe's position in terms of using Web 2.0 innovations in the domain of learning. It reports on the analysis of eight Learning 2.0 initiatives targeted at learners at risk of exclusion from the knowledge-based society. The initiatives studied are different in focus and address a variety of audiences and learning objectives, illustrating the scope and variety of Learning 2.0 for inclusion. The case assessment critically examines impacts and outcomes, barriers, and factors for failure and success. All cases highlight the vast potential of social computing for opening up learning opportunities for those at risk of exclusion, while outlining existing obstacles and bottlenecks.

Forge, S., Blackman, C. and Lindmark, S. (2009). *"Plastic promises: the disruptive potential of OLEDs and e-paper for the European display industry"*, *Foresight*, Vol. 11 No. 3.

This paper aims to explore two developing display technologies, organic light emitting diodes (OLEDs) and e-paper, with a view to assessing their potential to disrupt existing markets and thereby offer an opportunity for European firms to play a larger role in the ICT sector. There is a huge amount of literature on the technical aspects of these technologies, speculative market analysis and journalistic assessments, and this paper brings all of these facets together in a sophisticated value chain analysis that indicates opportunities for Europe's ICT sector. The paper is based on an IPTS study which includes literature review and detailed desk research on the technologies themselves, their potential application and market analysis. Selected interviews with industry representatives further inform a detailed value chain analysis and assessment of the EU position in these technologies. The paper concludes that OLEDs and

e-paper have the potential to disrupt the current displays market and in so doing, they may enable EU companies to enter at selected points in the value chain to compete with the Asian ICT industry.

Gáspár, P., Ala-Mutka, K., Punie, Y. (eds). (2009). The Development of eServices in an Enlarged EU: A Synthesis Report on eLearning, JRC Scientific and Technical Reports, EUR 23831 EN, Seville, Spain.

In 2005, IPTS launched a project which aimed to assess developments in the fields of eGovernment, eHealth and eLearning in the 10 Member States that joined the EU in 2004. The results were reported in country reports and in synthesis reports. The synthesis report on eLearning offers an integrated view of the developments in this field in these countries. It reports the role played by eLearning within both the formal education system and other aspects of lifelong learning and then analyses the major achievements, shortcomings, drivers and barriers in the development of eLearning in these 10 Member States.

Heid, S., Fischer, T. Kugeman, W.F. (2009). Good Practices for Learning 2.0: Promoting Innovation. An In-depth Study of Eight Learning 2.0 Cases. JRC Technical Note JRC 53212, Seville, Spain.

This Technical Note is an output of the [Learning 2.0 project](#) which assessed the impact of Web 2.0 trends on the field of learning and education in Europe and Europe's position in terms of using Web 2.0 innovations in the domain of learning. It provides evidence of good practices in the adoption of Learning 2.0 approaches as a means of innovation by investigating in depth eight initiatives. The case assessment critically examines impacts and outcomes, barriers, and factors for failure and success. All the cases highlight the vast potential of social computing for promoting pedagogical and organisational innovation, thus transforming educational approaches, institutions and systems, and, at the same time, they indicate the existing obstacles and bottlenecks.

Kluzer, S. & Rissola, G. (2009). E-Inclusion Policies and Initiatives in Support of Employability of Migrants and Ethnic Minorities in Europe, in *Information technologies & International Development*, Vol 5, Issue 2 - Summer 2009 (Special Issue: ICT Skills & Employability).

The article provides an overview of the current social exclusion (and related digital exclusion) situation in Europe; of the European e-Inclusion

policies addressing these issues, the role played by the 'Third Sector'; and the need to enhance cooperation between policy makers and practitioners to achieve better results. The article provides examples of different links between ICT use, digital skills and employability for immigrant and ethnic minorities living in Europe. The development of different levels of digital skills, including those needed for work in the IT and media businesses, is an important aspect of many initiatives which promote the adoption and use of ICT by this segment of the population. Other initiatives use ICT-based tools for evaluating migrants' skills, for matching job supply and demand, and for delivering services in support of self-employed migrants. More research is still needed to understand whether/how far digital skills can really help disadvantaged groups to overcome other barriers they face as regards labour market integration.

Nepelski, D. (2009). "The Impact of E-procurement on the Number of Suppliers". *Transformations in Business & Economics*, Vol. 8, No 1(16).

This paper examines how electronic procurement influences firms' sourcing strategies. Electronic procurement determines coordination costs and the level of competition between suppliers. Hence, its adoption is likely to affect a firm's choice with respect to the number of suppliers with which it interacts. Hypotheses are tested using data from the e-Business W@tch survey. Assessing the relationship between the effect of electronic procurement on procurement cost and sourcing strategy, the author provides new evidence that electronic procurement leads to more market transactions.

Lindmark, S. (2009). Web 2.0: Where does Europe stand? JRC IPTS Scientific and Technical Report, EUR: 23969 EN, Seville, Spain.

This report provides a techno-economic analysis of Web 2.0 and an assessment of Europe's position in Web 2.0 applications. Firstly, it introduces the phenomenon of Web 2.0 and its main characteristics: technologies, applications, and user roles. It then provides an overview of its adoption, value chain and business models, before moving to an analysis of its drivers, industrial impact and disruptive potential. Finally, the report assesses the position of the European Web 2.0 applications industry and its prospects for growth.

Pascu, C., Osimo, D., Turlea, G., Ulbrich, M., Punie, Y. & Burgelman, J.C. (2009). "[Social computing - implications for the EU innovation landscape](#)". *Journal for Social Informatics*, Vol VI, Issue. 11.

The purpose of this paper is to assess the main implications for innovation and competitiveness of social computing trends that promote social and economic relations. Social computing is increasingly being considered by policymakers, both as a tool and as an object for policymaking (i.e. how social computing could play a role in information society policies). The paper ends with a summary of the lessons to be learned from the policy-related consequences of social computing in Europe.

This paper is an updated version (new data for 2009) of the original article published by *Emerald Foresight: the journal of future studies, strategic thinking and policy*, Vol. 10, Issue 1. Pascu, C. & van Lieshout, M., 2009. [User-led, citizen innovation at the interface of services](#), *Emerald Info*, vol. 11, Issue 6.I.

This paper reflects on user empowerment enabled by three contemporary approaches, namely living labs, open innovation and social computing, as instruments for innovating products and services based on next generation networks (NGNs). User-centric services can be a catalyst for promoting future service ecosystems over NGN. Open strategies may prove to be profitable avenues for incumbents who may consider the extension of the market from access services to value added services. This paper argues that user-led innovation could be a significant paradigm shift for innovating products and services, particularly in the specific context of NGNs. It argues that this focus is lacking today, with most of the attention on specific NGN technology and infrastructure issues.

Redecker, C (ed.) (2009). [Learning 2.0 Case Database](#). *JRC Technical Note, JRC 51916*.

The Case Database gathers some 250 Learning 2.0 initiatives in Europe and the rest of the world, in order to outline the scope and potential of social computing applications for education and training organisations. While the collection is not a representative sample, it does provide an overview of the richness of Learning 2.0, indicating the multiplicity of ways in which social computing applications may improve learning patterns, give rise to new learning opportunities and transform education and training organisations.

Publications

For an overview of our publications, please have a look at our [website](#):
<http://is.jrc.ec.europa.eu/pages/Publications.html>

5. Recent Events

Over the past few months, the IS Unit has held the following events:

IPTS/Club GERTECH Workshop: "IV Jornada Formativa sobre Innovación y Tecnología para la Gerencia Sanitaria." Seville, IPTS: 09/06/2009

IPTS presented the results of the studies on Social Computing applied to the health sector and the first results of the **Strategic Intelligence Monitor for Personal Health Systems (SIMPHS)** project to the Spanish medical devices and IST for health industry, academia and key hospital managers. Contact: [Ioannis Maghiros](#).

Workshop on 'The new European display industry – opportunities in OLEDs and electronic paper and implications for policy.' Seville, IPTS: 17/06/2009

Since the early 1990s, the global display industry has grown dramatically, to over €125 billion in global turnover, making it the second largest component industry in the ICT sector. Geopolitically, the industry has become dominated by Asian suppliers for TFT LCD. Now, two new technologies may be on the verge of breaking into the displays market – organic light emitting diodes (OLEDs) and electronic paper (e-paper). The purpose of this workshop was to assess Europe's future competitive position in the display industry resulting from disruptive progress in these new technologies, as well as to discuss how EU policy could support in strengthening that position. Contact [Sven Lindmark](#).

Workshop on 'ICT for learning the host country's language by adult migrants in the EU.' Seville, IPTS: 01-02/10/2009

The workshop aims to identify the key challenges currently faced in second language (L2) education of adult migrants in EU countries; to present and discuss how such challenges are being addressed by using ICT in four specific initiatives within the EU Member States; to draw preliminary conclusions about the opportunities afforded by ICT to enhance L2 education of adult migrants (from the point of view of learners, teachers,

training agencies and other stakeholders) and to identify policy implications and further research needs. Contact [Stefano Kluzer](#).

Workshop on 'Software games' technological and market potential: How the EU can compete now and in the future.' Seville, IPTS: 16/10/2009

The workshop discussed the potential of the software games industry, in order to better identify those segments which could play a disruptive role in the short term, both with regard to the market and to the technological impacts. It also assessed the strengths and weaknesses of EU firms in the industry, and highlighted drivers for a future where it would be possible for the EU to take the lead in this market. Representatives of academia, research institutions and European companies attended. Contact [Giuditta De Prato](#).

Workshop on the 'Internationalisation of ICT R&D'. Seville, IPTS: 22-23/10/2009

ICT companies seem to be increasingly internationalising their R&D activities. Internationalisation of R&D may have a negative impact on domestic R&D expenditures and on the domestic knowledge base. However, by accessing a wider pool of knowledge, companies can improve their competitiveness which could, in turn, have positive spill-over effects at home. The aim of the workshop was to present and discuss currently available data and information, and to attempt to develop a prospective analysis of the issue. IPTS invited participants from international organisations, academic institutions and multinational companies. Contact [Daniel Nepelski](#).

Workshop on 'RFID technologies: Economic impact of and European Industrial Competitiveness'. Brussels, DG Enterprise: 28/10/2009

The purpose of this workshop was to assess Europe's future competitive position in the RFID industry, and to discuss how EU policy could strengthen that position. IPTS invited participants from industry, the European Commission, industry analysts and consultants, standard-setting organisations, academia, collaborative forums and the financing sector. Contact [Sven Lindmark](#).

Workshop on 'ICT for Socio-economic Integration of Youth at Risk of Exclusion'. Seville, IPTS: 02-03/11/2009

The objectives of the workshop were to bring together experts from different backgrounds (academics, practitioners working with young people at risk and policymakers involved with European youth policies) in order to exchange ideas, brainstorm and build consensus on the state of the art of the current knowledge, research and practices developed around young people at risk and ICT-driven initiatives targeting them. It also aimed to identify the main research, methodological and implementation challenges posed by the impact assessment of these ICT-driven initiatives. Contact [Alexandra Haché](#).

Events

For an overview of our recent & upcoming events, please have a look at our [website](#): <http://is.jrc.ec.europa.eu/pages/Events.html>

If you are interested in being part of our expert community or to participate in our workshops, you are welcome to contact us at jrc-ipts-is-NEWS@ec.europa.eu.

Two / three times per year we look for researchers to join our team as JRC grantholders. These opportunities are publicized on our website (<http://ipts.jrc.ec.europa.eu/jobs/vacancies.cfm>).

Currently the IS Unit is recruiting a **Senior macro-economic modeler** for its brand new scientific activity: the development of micro- and macro-economic modeling of the Digital Economy.



European Commission - Joint Research Centre
Institute for Prospective Technological Studies
Edificio Expo
C/ Inca Garcilaso, 3
41092 Seville, Spain
Switchboard: + 34 954 48 83 18
<http://is.jrc.ec.europa.eu>
<mailto:jrc-ipts-is-NEWS@ec.europa.eu>

